

CLAIMS:

1. A method to manage a buffer, comprising:
storing audio information in a circular buffer;
5 scheduling access to said audio information by a plurality of components; and
accessing said stored audio information by said components in accordance with
said schedule.
2. The method of claim 1, wherein said storing comprises:
10 receiving audio information;
identifying a buffer location to store said audio information; and
storing said audio information in said buffer location.
3. The method of claim 2, wherein said storing further comprises:
15 determining whether said buffer location comprises a frame boundary; and
sending a first signal with said frame boundary in accordance with said
determination.
4. The method of claim 3, wherein said scheduling comprises:
20 receiving said first signal;
selecting some components to access said buffer using said frame boundary; and
sending a second signal to said selected components to access said buffer.

5. The method of claim 4, wherein said accessing comprises:
- receiving said second signal;
 - retrieving an index to indicate a first buffer location;
 - reading a frame of audio information from said buffer using said index;
 - 5 processing said audio information;
 - writing said processed audio information to said buffer; and
 - updating said index to a second buffer location.
6. An apparatus to perform media processing, comprising:
- 10 a circular buffer;
 - an audio data module connected to said circular buffer;
 - a plurality of components connected to said circular buffer; and
 - a scheduling module connected to said audio input module and said components.
- 15 7. The apparatus of claim 6, wherein said plurality of components comprises at least two components of a list of components comprising a preprocessing module, an echo canceller, a signal detector and generator, an automatic gain controller, and a voice encoder.
- 20 8. The apparatus of claim 6, wherein said plurality of components comprises at least two components of a list of components comprising a data modem, a signal detector and generator, automatic volume control and voice decoder.

9. The apparatus of claim 6, wherein said audio data module stores audio information in said circular buffer by receiving audio information, identifying a buffer location to store said audio information, and storing said audio information in said buffer location.

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10. The apparatus of claim 9, wherein said audio data module determines whether said buffer location comprises a frame boundary, and sends a first signal with said frame boundary if said buffer location is a frame boundary.

10 11. The apparatus of claim 10, wherein said scheduling module schedules access to said audio information by said components by receiving said first signal, selecting some components to access said buffer using said frame boundary, and sending a second signal to said selected components to access said buffer.

15 12. The apparatus of claim 11, wherein each component accesses said stored audio information by receiving said second signal, retrieving an index to indicate a first buffer location, reading a frame of audio information from said buffer using said index, processing said audio information, writing said processed audio information to said buffer, and updating said index to a second buffer location.

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13. An article comprising:
a storage medium;

said storage medium including stored instructions that, when executed by a processor, result in storing audio information in a circular buffer, scheduling access to said audio information by a plurality of components, and accessing said stored audio information by said components in accordance with said schedule.

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14. The article of claim 13, wherein the stored instructions, when executed by a processor, further result in said storing by receiving audio information, identifying a buffer location to store said audio information, and storing said audio information in said buffer location.

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15. The article of claim 14, wherein the stored instructions, when executed by a processor, further result in said storing by determining whether said buffer location comprises a frame boundary, and sending a first signal with said frame boundary in accordance with said determination.

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16. The article of claim 15, wherein the stored instructions, when executed by a processor, further result in said scheduling by receiving said first signal, selecting some components to access said buffer using said frame boundary, and sending a second signal to said selected components to access said buffer.

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17. The article of claim 16, wherein the stored instructions, when executed by a processor, further result in said accessing by receiving said second signal, retrieving an index to indicate a first buffer location, reading a frame of audio information from said

buffer using said index, processing said audio information, writing said processed audio information to said buffer, and updating said index to a second buffer location.

18. A system to process audio information, comprising:

- 5 a media gateway;
a media gateway controller; and
a media processing device connected to said media gateway and said media gateway controller.

10 19. The system of claim 18, wherein said media processing device comprises:

- a circular buffer;
an audio data module connected to said circular buffer;
a plurality of components connected to said circular buffer; and
a scheduling module connected to said audio input module and said components.

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20. The system of claim 19, wherein said audio data module stores audio information in said circular buffer by receiving audio information, identifying a buffer location to store said audio information, and storing said audio information in said buffer location.

20 21. The system of claim 20, wherein said audio data module determines whether said buffer location comprises a frame boundary, and sends a first signal with said frame boundary if said buffer location is a frame boundary.

22. The system of claim 21, wherein said scheduling module schedules access to said audio information by said components by receiving said first signal, selecting some components to access said buffer using said frame boundary, and sending a second signal to said selected components to access said buffer.

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23. The system of claim 22, wherein each component accesses said stored audio information by receiving said second signal, retrieving an index to indicate a first buffer location, reading a frame of audio information from said buffer using said index, processing said audio information, writing said processed audio information to said
10 buffer, and updating said index to a second buffer location.